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An anamorphic genus and species newly recorded from Turkey

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Abstract — *Diplosporonema delastrei* is reported for the first time from Turkey on *Silene latifolia* subsp. *alba*. Description and illustrations are presented, all based on Turkish material.

Key words — microfungi, coelomycetes, new record

Introduction

Turkey is one of the richest areas in the middle latitudes in terms of plant diversity. Turkish flora includes 12,000 species and still a great number of new species are being described (Avcı 2005). This diversity of the host species is an important factor for the diversity of microfungi as well, making microfungi biota in Turkey very rich. The first data on micromycetes, including coelomycetes, were recorded by Bremer et al. (1947, 1952) and Petrak (1953). The subsequent data on coleomycetes were published in the paper devoted to diseases of cultivated plants (Karel 1958) and as results of the research by Göbelez (1967). Observations on coelomycetes in Turkey have increased during last decade (Altan & Tamer 1996, Hüseyinov & Selçuk 1999, Braun et al. 2000, Hüseyinov 2000, Hüseyin & Selçuk 2001, Hüseyinov et al. 2002, Selçuk et al. 2003, Kırbağ 2004, Mel'nik et al. 2004, Hüseyin et al. 2005, 2007, Erdoğdu & Hüseyin 2007).

Material and methods

Microscopic examination and microphotographs were done by means of Leica DM E light microscope. Novex P-20 stereo microscope was used for close-up photo of the acervuli on leaf surface. Conidiomata sections were prepared by razor blade. The fungus was identified using the relevant literature (Ellis & Ellis 1985, Ignatavičiūtė & Treigienė 1998, Sutton 1980). The host plant was identified using the "Flora of Turkey and East Aegean Islands" (Davis 1967). The examined specimen is deposited in the mycological collection of Ahi

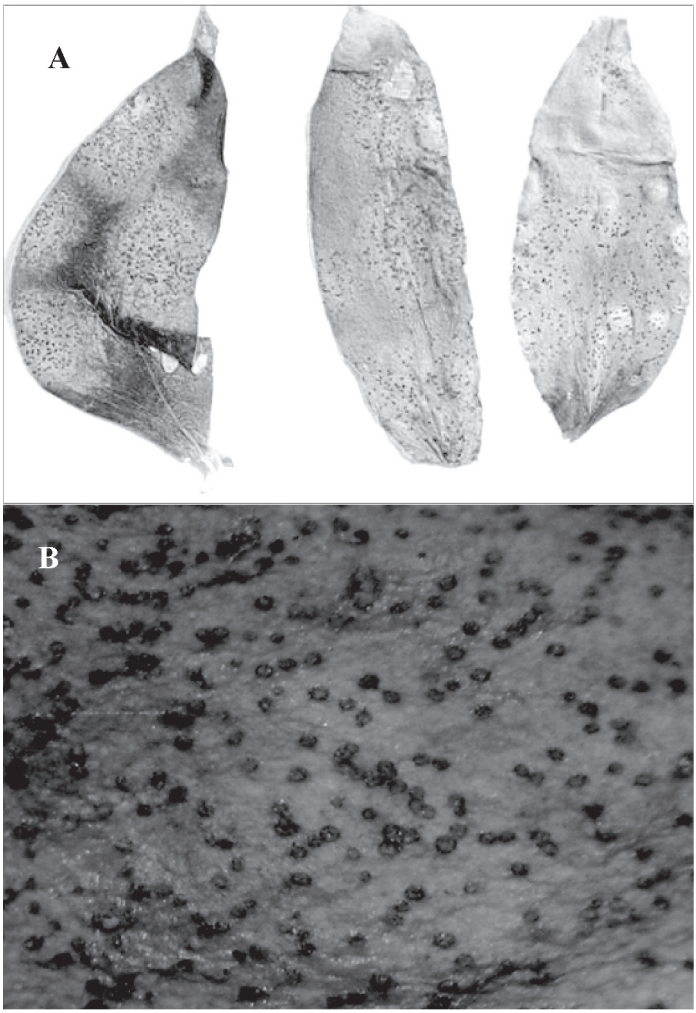

Fig. 1. *Diplosporonema delastrei*.
A. Leaf spots. × 2; B. Acervuli on leaf. × 40.

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Results

The genus *Diplosporonema* and its species *D. delastrei* have not been reported for Turkey in the literature. Description and illustrations of this species based on a Turkish collection are given on the next page.

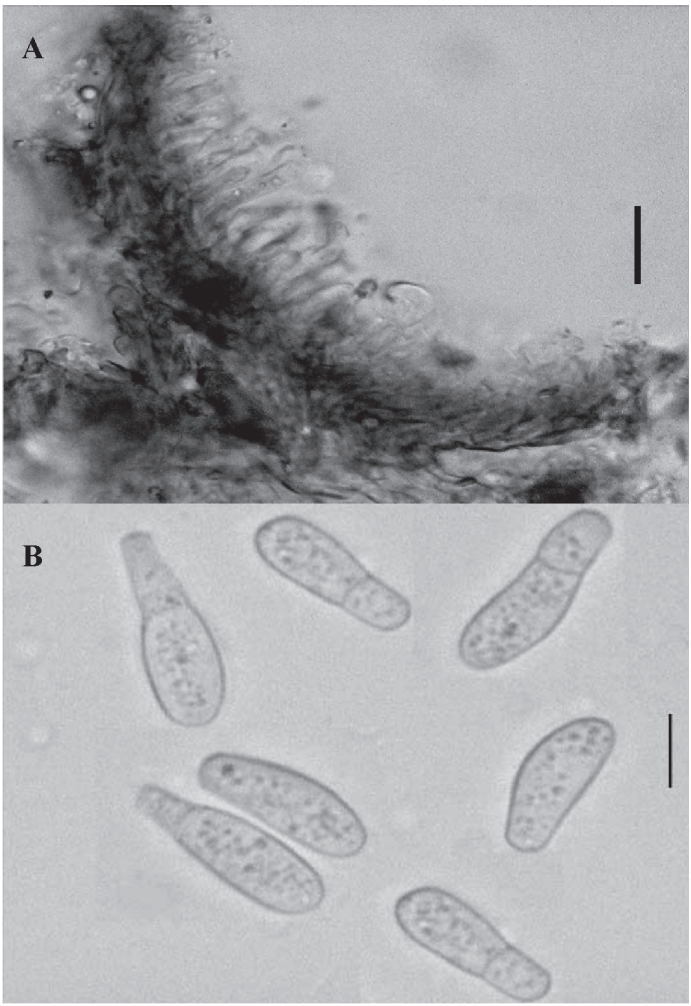

Fig. 2. *Diplosporonema delastrei*.
A. Vertical section of a conidioma. Scale bar = 18 μm.
B. Conidia. Scale bar = 10 μm.

Diplosporonema delastrei (Lacroix) Petr., Sydowia 1: 74, 1947. Figs. 1–2

Gloeosporium delastrei Lacroix, in Montagne, Annales des Sciences Naturelles, Botanique, Série 4, 5: 345, 1856.

Marssonia delastrei (Lacroix) Sacc., Michelia 2(6): 119, 1880.

Marssonina delastrei (Lacroix) Magnus, Hedwigia 45: 89, 1906.

Phragmosporonema delastrei (Lacroix) Moesz & Smarods, in Moesz, Magyar Bot. Lapok 33: 52, 1934.

Foliicolous. Spots on both sides of leaves, pale yellow to pale brown on the upper surface, pale brown on the lower, sometimes purple-bordered, regular or irregularly rounded, 0.3–1.5 cm diam, sometimes elongated, 1.5–2.5 × 0.4–1 cm (Fig. 1A). Conidiomata acervular, amphigenous, epidermal to subepidermal, scattered, yellowish, circular, 100–165 µm diam, thin-walled, textura angularis (Fig. 1B, 2A). Conidiophores hyaline, smooth, septate, branched penicillately or irregularly at the above, 20–30 × 2–4 µm, developing from the upper pseudoparenchyma. Conidiogenous cells hyaline, cylindrical to subcylindrical, 6–12 × 4.5–5.5 µm, holoblastic, sympodial, indeterminate, integrated or discrete, smooth, with 1–2 conidia formed sympodially from broad, flat, unthickened scarcely protuberant scars. Conidia hyaline, straight or curved, subcylindrical to clavate, 17.5–25 × 5–6.5 µm, smooth, thin walled, eguttulate, 1–2-euseptate, not constricted, base truncate, apex obtuse (Fig. 2B).

Specimen examined — **TURKEY, Erzincan Prov.**, Kemaliye, Ipek road, on living leaves of *Silene latifolia* subsp. *alba* (Mill.) Greuter & Burdet (= *Silene alba* (Mill.) E.H.L. Krause) (*Caryophyllaceae*), alt. 1311 m, 04-VII-2007, coll. M. Erdogdu (ME 2012).

Discussion

Höhnel (1917) introduced the generic name *Diplosporonema* for *Gloeosporium delastrei*, the conidial state of the teleomorphic species *Pyrenopeziza agrostemmatis* Fuckel [= *Diplocarpon saponariae* (Ces.) Nannf.]. However, he did not recombine *G. delastrei* in the new genus. The binominal *Diplosporonema delastrei* was not validly published until Petrak (1947) presented it as the correct name for *Phragmosporonema delastrei* (pointing out that *Phragmosporonema* Moesz is a superfluous name based on the same type as *Diplosporonema* Höhn.).

Diplosporonema delastrei (the only species in the genus) develops on leaves, rarely stems, of numerous genera of the *Caryophyllaceae*. It is known from Africa, Asia, Europe and North America (Grove 1937, Šwarcman et al. 1971, Ignatavičiūtė & Treigienė 1998, Sutton 1980, Andrianova & Golubtsova 2006, and others).

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